FIG.1

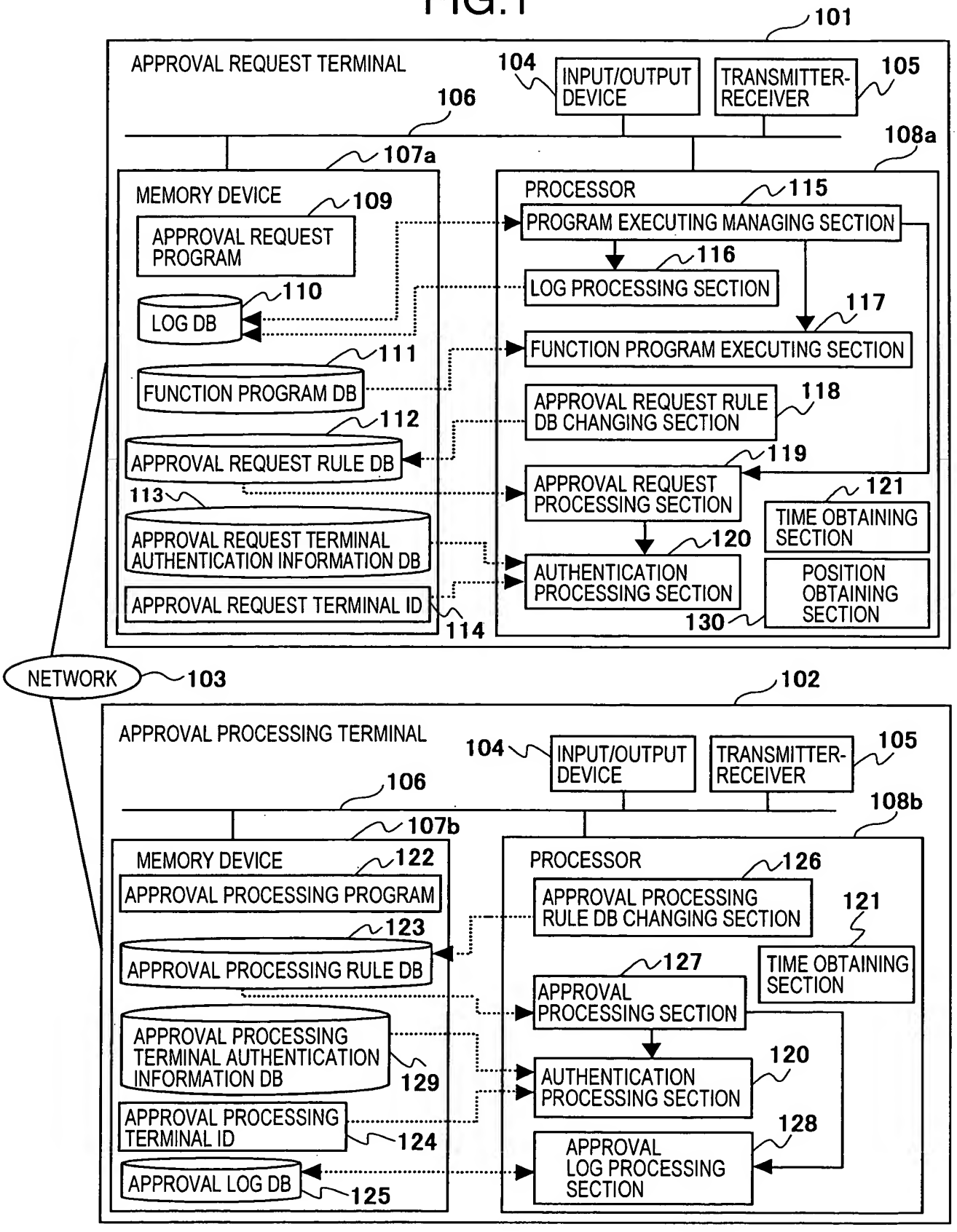

101
APPROVAL REQUEST TERMINAL
104
INPUT/OUTPUT DEVICE
TRANSMITTER-RECEIVER
105
106
108a
107a
MEMORY DEVICE
109
APPROVAL REQUEST PROGRAM
110
LOG DB
111
FUNCTION PROGRAM DB
112
APPROVAL REQUEST RULE DB
113
APPROVAL REQUEST TERMINAL AUTHENTICATION INFORMATION DB
APPROVAL REQUEST TERMINAL ID
114
PROCESSOR
115
PROGRAM EXECUTING MANAGING SECTION
116
LOG PROCESSING SECTION
117
FUNCTION PROGRAM EXECUTING SECTION
118
APPROVAL REQUEST RULE DB CHANGING SECTION
119
APPROVAL REQUEST PROCESSING SECTION
121
TIME OBTAINING SECTION
120
AUTHENTICATION PROCESSING SECTION
POSITION OBTAINING SECTION
130
NETWORK
103
102
APPROVAL PROCESSING TERMINAL
104
INPUT/OUTPUT DEVICE
TRANSMITTER-RECEIVER
105
106
108b
107b
MEMORY DEVICE
122
APPROVAL PROCESSING PROGRAM
123
APPROVAL PROCESSING RULE DB
APPROVAL PROCESSING TERMINAL AUTHENTICATION INFORMATION DB
129
APPROVAL PROCESSING TERMINAL ID
124
APPROVAL LOG DB
125
PROCESSOR
126
APPROVAL PROCESSING RULE DB CHANGING SECTION
121
TIME OBTAINING SECTION
127
APPROVAL PROCESSING SECTION
120
AUTHENTICATION PROCESSING SECTION
128
APPROVAL LOG PROCESSING SECTION

FIG.2

| 201 FUNCTION NAME | 124 APPROVAL PROCESSING TERMINAL ID (APPROVAL DESTINATION) | 202 APPROVAL REQUEST METHOD | 203 COMMUNICATION IMPOSSIBLE TIME PROCESSING |
|---|---|---|---|
| GAME | NONEXISTENCE | NONEXISTENCE | NONEXISTENCE |
| CALL | 09011111111 | TERMINATING TIME LOG TRANSMISSION | LOG TRANSMISSION |
| CREDIT ACCOUNT SETTLEMENT | 09022222222 | STARTING TIME | UNEXECUTABLE |
| INTERNET | 09022222222 | EVERY 60 MINUTES | LOG TRANSMISSION |
| MAIL | 09033333333 | STARTING TIME | LOG TRANSMISSION |
| ⋮ | ⋮ | ⋮ | ⋮ |

FIG.3

| 201 FUNCTION NAME | 114 APPROVAL REQUEST TERMINAL ID (APPROVAL REQUEST SOURCE) | 301 APPROVAL PROCESSING METHOD |
|---|---|---|
| GAME | 09055555555 | NO CONDITION |
| CREDIT ACCOUNT SETTLEMENT | 09055555555 | EVERY TIME |
| TELEPHONE | 09066666666 | ONLY FIRST TIME |
| INTERNET | 09055555555 | 30 MINUTES OR MORE |
| MAIL | 09066666666 | NO CONDITION |
| ⋮ | ⋮ | ⋮ |

FIG.4

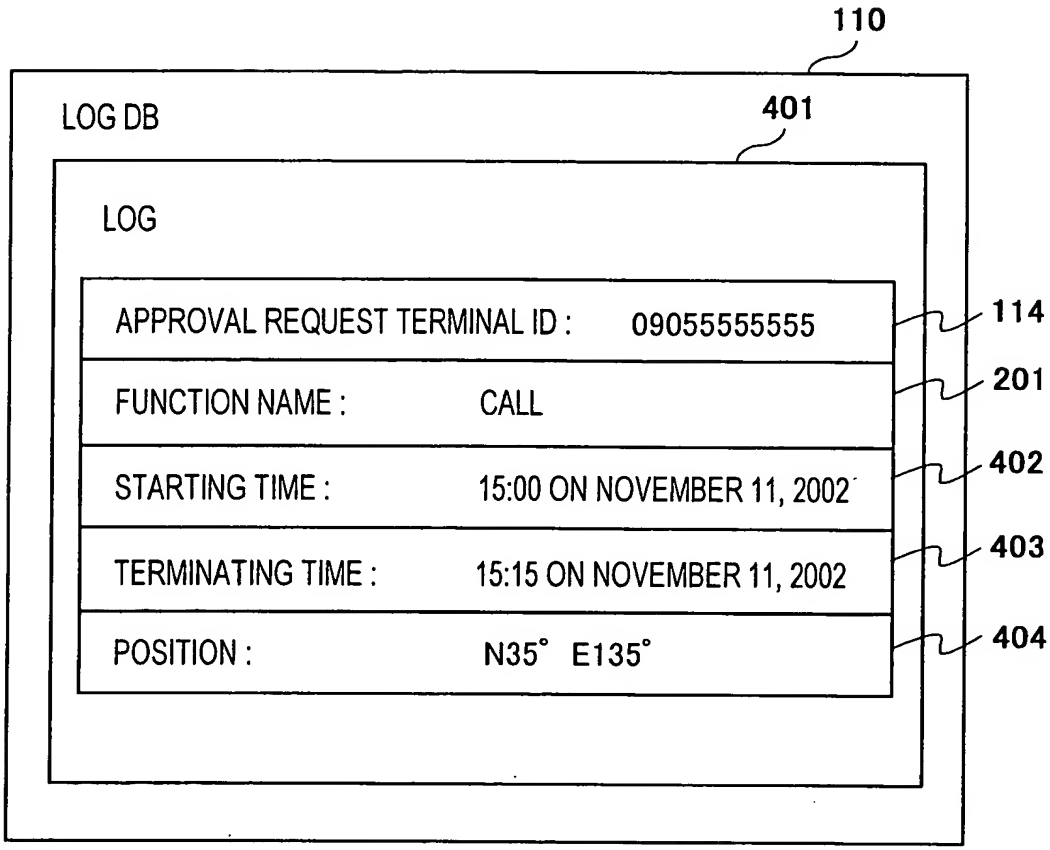

110
LOG DB
401
LOG
APPROVAL REQUEST TERMINAL ID : 09055555555
FUNCTION NAME : CALL
STARTING TIME : 15:00 ON NOVEMBER 11, 2002
TERMINATING TIME : 15:15 ON NOVEMBER 11, 2002
POSITION : N35° E135°
114
201
402
403
404

FIG.5

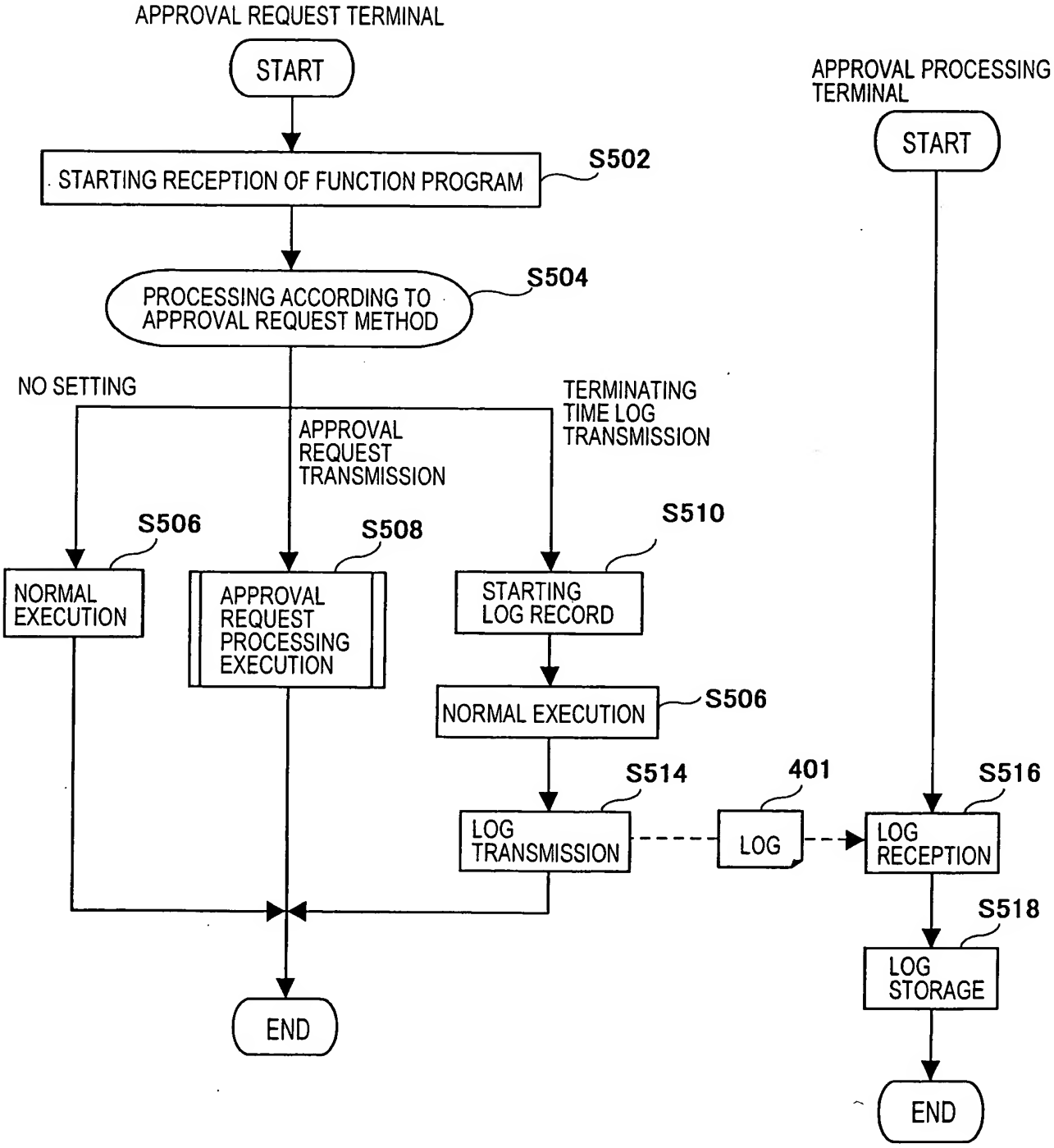

APPROVAL REQUEST TERMINAL
START
STARTING RECEPTION OF FUNCTION PROGRAM
S502
PROCESSING ACCORDING TO APPROVAL REQUEST METHOD
S504
NO SETTING
APPROVAL REQUEST TRANSMISSION
TERMINATING TIME LOG TRANSMISSION
S506
NORMAL EXECUTION
S508
APPROVAL REQUEST PROCESSING EXECUTION
S510
STARTING LOG RECORD
NORMAL EXECUTION
S506
S514
LOG TRANSMISSION
401
LOG
END
APPROVAL PROCESSING TERMINAL
START
S516
LOG RECEPTION
S518
LOG STORAGE
END

FIG.6

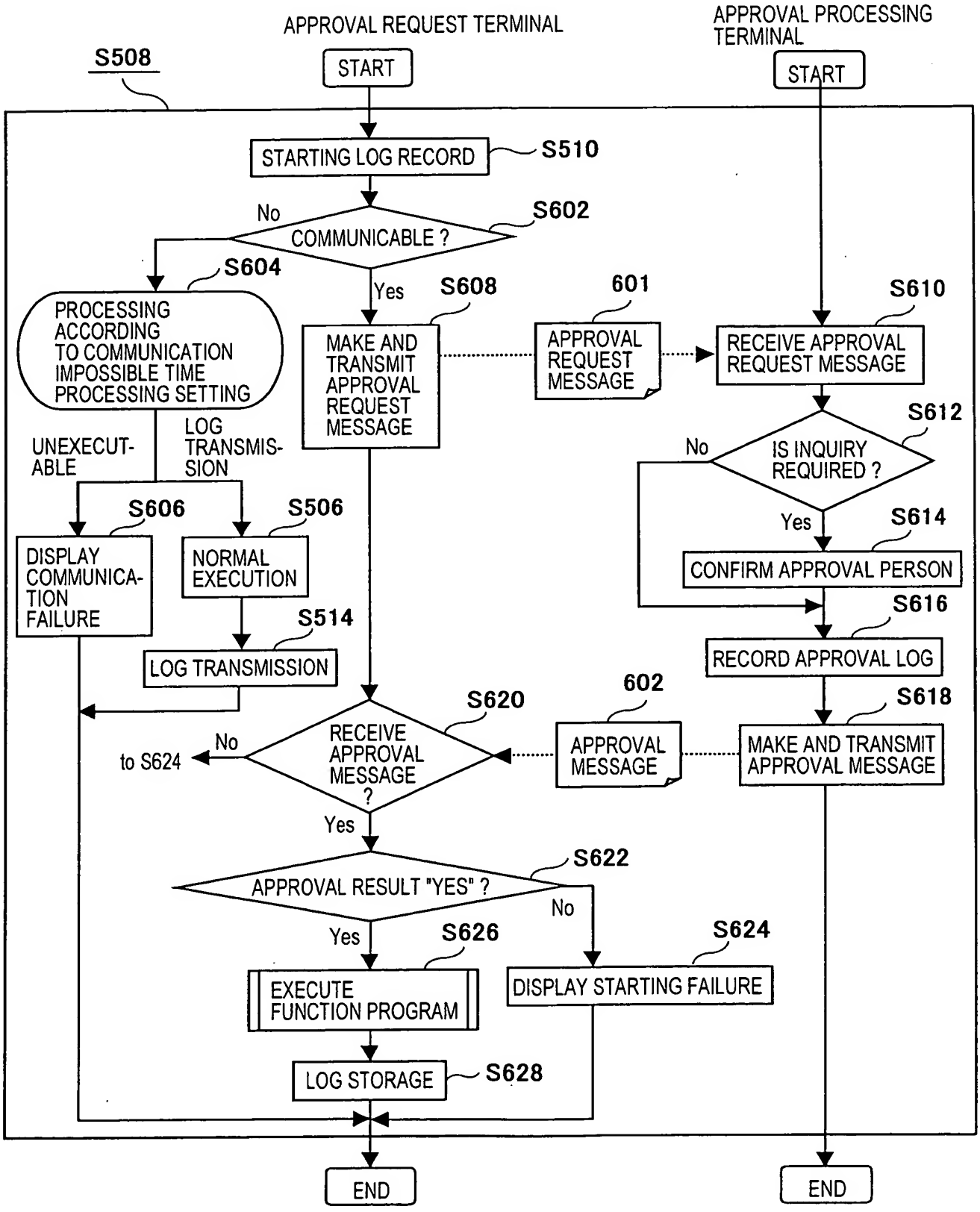

APPROVAL REQUEST TERMINAL
APPROVAL PROCESSING TERMINAL
S508
START
START
STARTING LOG RECORD
S510
No
COMMUNICABLE ?
S602
Yes
S604
S608
601
S610
PROCESSING ACCORDING TO COMMUNICATION IMPOSSIBLE TIME PROCESSING SETTING
MAKE AND TRANSMIT APPROVAL REQUEST MESSAGE
APPROVAL REQUEST MESSAGE
RECEIVE APPROVAL REQUEST MESSAGE
S612
No
IS INQUIRY REQUIRED ?
Yes
S614
CONFIRM APPROVAL PERSON
UNEXECUT-ABLE
LOG TRANSMIS-SION
S606
S506
DISPLAY COMMUNICA-TION FAILURE
NORMAL EXECUTION
S616
RECORD APPROVAL LOG
S514
LOG TRANSMISSION
602
S620
S618
to S624
No
RECEIVE APPROVAL MESSAGE ?
APPROVAL MESSAGE
MAKE AND TRANSMIT APPROVAL MESSAGE
Yes
S622
APPROVAL RESULT "YES" ?
No
Yes
S626
S624
EXECUTE FUNCTION PROGRAM
DISPLAY STARTING FAILURE
LOG STORAGE
S628
END
END

FIG.7

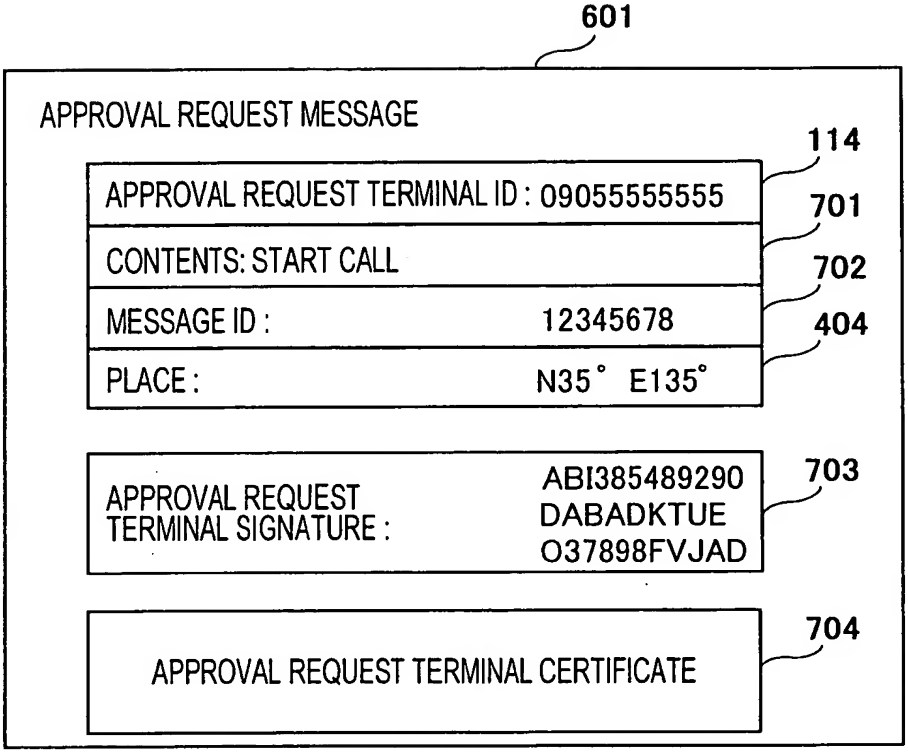

601
APPROVAL REQUEST MESSAGE
114
APPROVAL REQUEST TERMINAL ID : 09055555555
701
CONTENTS: START CALL
702
MESSAGE ID : 12345678
404
PLACE : N35° E135°
703
APPROVAL REQUEST TERMINAL SIGNATURE : ABI385489290 DABADKTUE O37898FVJAD
704
APPROVAL REQUEST TERMINAL CERTIFICATE

FIG.8A

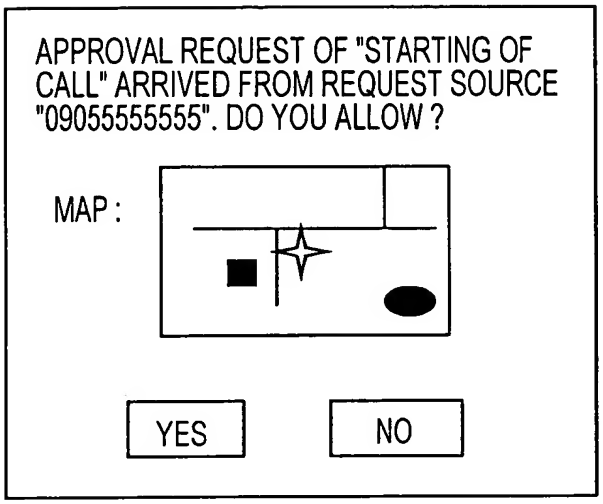

APPROVAL REQUEST OF "STARTING OF CALL" ARRIVED FROM REQUEST SOURCE "09055555555". DO YOU ALLOW ?
MAP :
YES
NO

FIG.8B

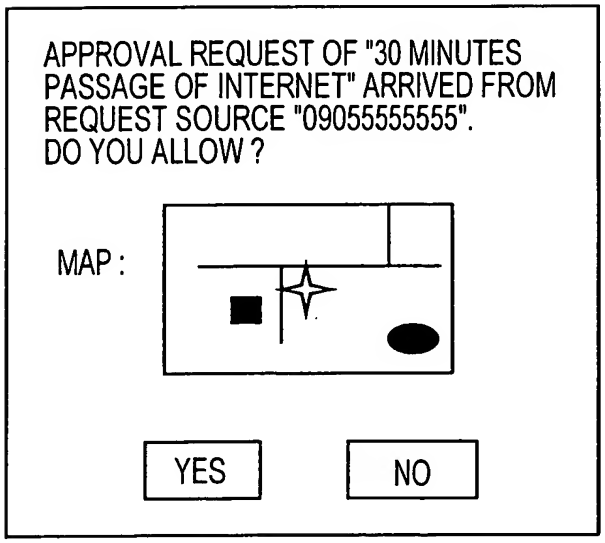

APPROVAL REQUEST OF "30 MINUTES PASSAGE OF INTERNET" ARRIVED FROM REQUEST SOURCE "09055555555". DO YOU ALLOW ?
MAP :
YES
NO

FIG.9

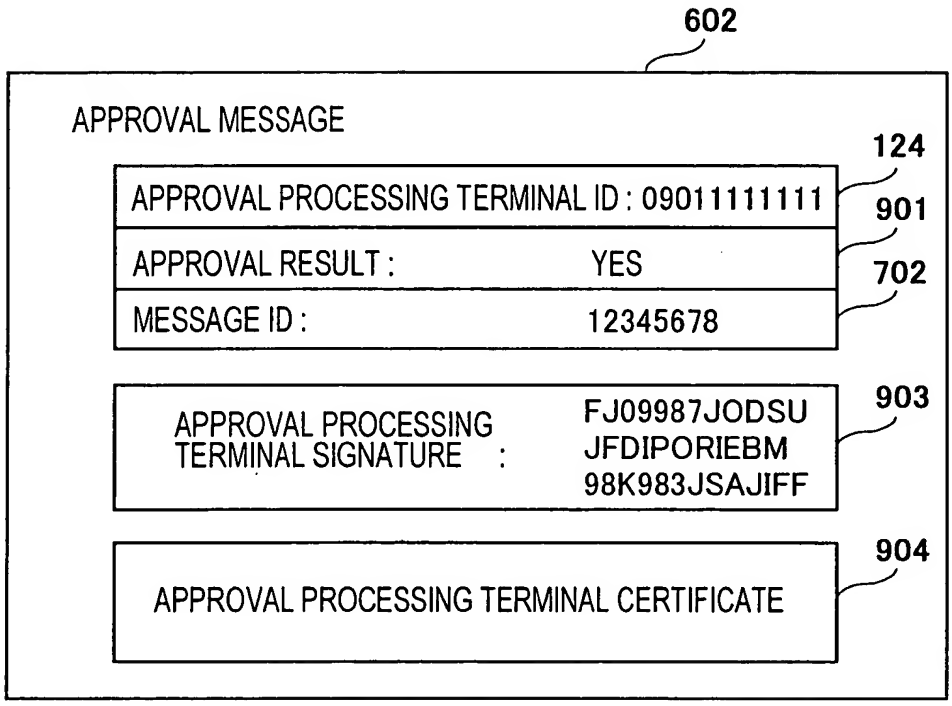

602
APPROVAL MESSAGE
124
APPROVAL PROCESSING TERMINAL ID : 09011111111
901
APPROVAL RESULT : YES
702
MESSAGE ID : 12345678
903
APPROVAL PROCESSING TERMINAL SIGNATURE : FJ09987JODSU JFDIPORIEBM 98K983JSAJIFF
904
APPROVAL PROCESSING TERMINAL CERTIFICATE

FIG.10

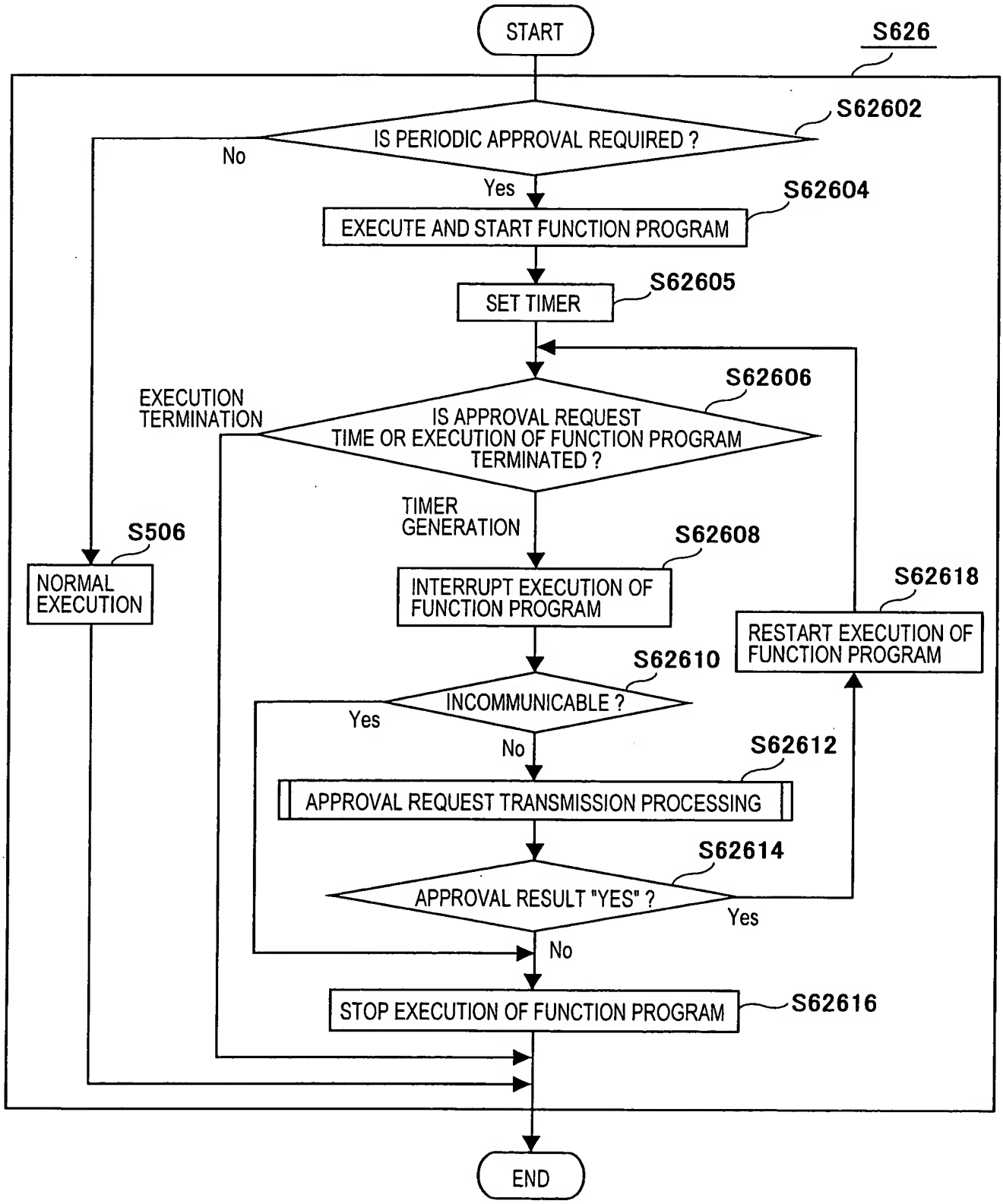
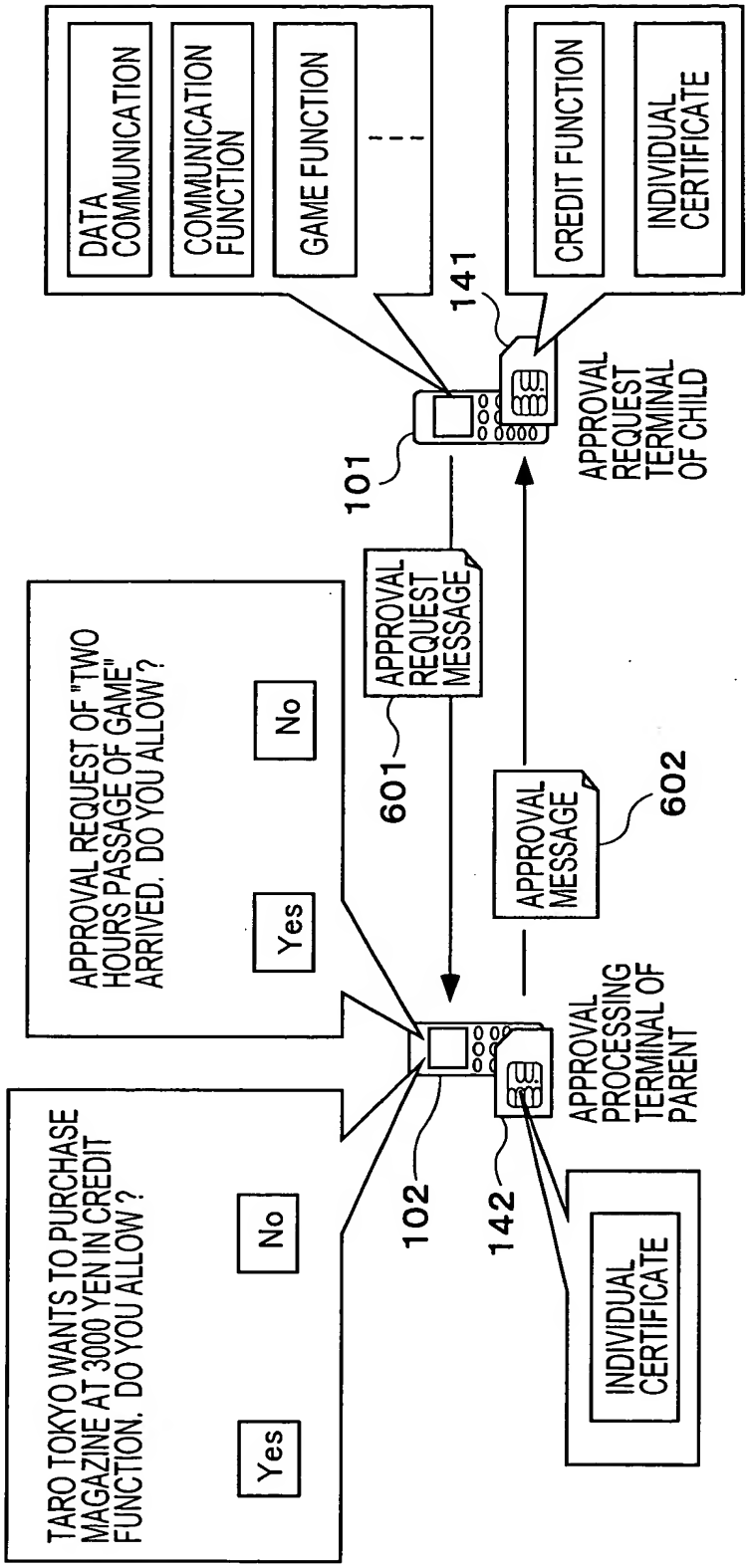

START
S626
S62602
IS PERIODIC APPROVAL REQUIRED ?
No
Yes
S62604
EXECUTE AND START FUNCTION PROGRAM
S62605
SET TIMER
S62606
EXECUTION TERMINATION
IS APPROVAL REQUEST TIME OR EXECUTION OF FUNCTION PROGRAM TERMINATED ?
TIMER GENERATION
S506
NORMAL EXECUTION
S62608
INTERRUPT EXECUTION OF FUNCTION PROGRAM
S62618
RESTART EXECUTION OF FUNCTION PROGRAM
S62610
INCOMMUNICABLE ?
Yes
No
S62612
APPROVAL REQUEST TRANSMISSION PROCESSING
S62614
APPROVAL RESULT "YES" ?
Yes
No
STOP EXECUTION OF FUNCTION PROGRAM
S62616
END

FIG.11


DATA COMMUNICATION
COMMUNICATION FUNCTION
GAME FUNCTION
CREDIT FUNCTION
INDIVIDUAL CERTIFICATE
141
101
APPROVAL REQUEST TERMINAL OF CHILD
APPROVAL REQUEST MESSAGE
601
APPROVAL REQUEST OF "TWO HOURS PASSAGE OF GAME" ARRIVED. DO YOU ALLOW?
No
Yes
APPROVAL MESSAGE
602
APPROVAL PROCESSING TERMINAL OF PARENT
102
142
TARO TOKYO WANTS TO PURCHASE MAGAZINE AT 3000 YEN IN CREDIT FUNCTION. DO YOU ALLOW?
No
Yes
INDIVIDUAL CERTIFICATE